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Uwe Berger

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EXAMINER

JENNISON, BRIAN W

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/597,850
Filing Date: August 09, 2006
Appellant(s): BERGER ET AL.

Erik R. Swanson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 6/20/2011 appealing from the Office action mailed 3/3/2011.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 6-12 stand rejected.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

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subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

2004/0027248	Lile	2-2004
2,907,859	Walkoe	10-1959
2003/0010221	Berger et al	1-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-7, 9-12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Walkoe (US 2,907,859) in view of Lile (US 2004/0027248).

Regarding Claim 6: A method for operating a cooking appliance having a cooking appliance control system (**Circuit and timer control. See Column 2, Lines 20-23**) and a door moveable between a closed position and an open position, the method comprising: (**Fig 2 shows door 7 in a closed position and is movable to an open position. See Column 3, Lines 1-2**) automatically moving the door from the closed position to the open position using the cooking appliance control system in response to a first signal when a cooking process is complete; and (**The door 7 is moved from a closed to open position when the cooking process is complete, when a timer expires or when the food reaches a preselected temperature and sends a current signal to a bimetallic switch. See Column 2, Lines 5-16**)

automatically returning the door from the open position to the closed position when a

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physical quantity falls below a predetermined threshold value stored in a memory of the cooking appliance control system. **(The appliance is capable of closing the door when the temperature stored in its memory falls below a value since the device has all the necessary elements for performing this function. The ram will retract to its original position when the circuit is broken, closing the door. See Column 7, Lines 20-25.)** Furthermore, the phrase/term automatically is not given patentable weight since the distinction between automatic and manual is considered an obvious modification.

Regarding Claim 7: A cooking appliance comprising: **(Domestic cooking oven. See Column 1, Line 3)**

a cooking chamber bounded by a housing; **(Electric range 1 comprises a metal body 2 and a cooking cavity 5 with an oven liner 6 making up a cooking chamber bound by a housing. See Column 2, Lines 65-72)** a door moveable between a closed position and a predetermined open position; a cooking appliance control system having a memory; **(When the thermometer control knob is set the temperature value is stored. The timer 14 also performs a similar function for storing time. Fig 2 shows door 7 in a closed position and is movable to an open position. See Column 3, Lines 1-2)**

a sensor disposed in the cooking chamber configured to send an output signal to the cooking appliance control system; **(a probe 10 sends a signal to a thermometer circuit. See Column 4, Lines 7-11. A timer switch 14 and thermometer control**

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knob 18 make up the cooking appliance control system. See Column 3, Lines 25-30)

a guide device; and **(a push rod frame 48 and a round base cavity 55 act as a guide device. The crank 58 guides the door to an open or closed position. See Column 5, Lines 4, 17, 35 and Figs 3 and 4)**

a door opening device including a positioning motor **(the ram actuator 42 is a positioning motor for opening the door. See Column 4, Lines 66-70)** and a rod configured to be automatically reciprocated in the guide device by the cooking appliance control system via the positioning motor **(the ram 47 or rod is moved by the ram actuator or motor in the guide device made of push rod frame 48 and round base cavity 55)** so as to automatically move the door from the closed position to the predetermined open position **(oven door is opened by the actuator. See Column 5, Lines 22-23)** and from the predetermined open position to the closed position, **(The ram returns to its original retracted position closing the oven door. See Column 7, Lines 22-23)** the cooking appliance control system configured to actuate the positioning motor as a function of the output signal so as to automatically move the door from the closed position to the predetermined open position when a cooking process is complete **(The door 7 is moved from a closed to open position when the cooking process is complete, when a timer expires or when the food reaches a preselected temperature. See Column 2, Lines 5-16. Since the door is opened in response to time this is a first condition. The door closing when the circuit is broken by the bimetallic switch is a different second condition.)** and to actuate the positioning

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motor so as to automatically return the door to the closed position when a physical quantity falls below a predetermined threshold value stored in the memory. **(The appliance is capable of closing the door when the temperature stored in its memory falls below a value since the device has all the necessary elements for performing this function. The ram will retract to its original position when the circuit is broken, closing the door. See Column 7, Lines 20-25. The door is not completely closed due to a stopping element. However, all the opening components retract which would allow one of ordinary skill in the art to configure the door to close automatically.)**

Walkoe fails to teach:

Regarding Claims 6 and 7: closing the door in response to a second condition indicative of a physical quantity falling below a predetermined threshold, wherein the first and second signals are different,

Since Walkoe discloses that the arm which opened the door returns to the “closed” position after a temperature had fallen below a threshold even though the stopping element keeps the door open, It would have been obvious to close the door automatically once the threshold temperature has been reached since one having ordinary skill in the art would recognize the advantages of closing the door so the temperature in the chamber does not decrease as quickly once the door has been opened to prevent the food from overcooking.

Lile teaches:

Regarding Claims 6 and 7: The door opens or closes based on the amount of voltage applied. **See Paragraph [0021].** Since the voltage is different the opening (first) and closing (second) signals are different. The differing voltages are different conditions since the opening and closing conditions are not the same.

In view of the teachings of Lile it would have been obvious to one of ordinary skill in the art at the time of the invention to include with the teachings of Walkoe, closing the door in response to a second signal and the first and second signals being different since Lile teaches closing a door in response to a voltage level for closing a door when a process is completed and the opening and closing voltage signals being different for differentiating between the opening and closing signals to allow for opening or closing depending on which is required.

Furthermore, Walkoe discloses the claimed invention except for automatically closing the door. It would have been obvious to one having ordinary skill in the art at the time the invention was made to automatically close the door, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

Walkoe also teaches:

Regarding Claim 9: The cooking appliance wherein the positioning motor includes an electrically heatable shape-memory element. **(The thermometer circuit which controls the operation of the actuator 42 or motor and is part of the motor includes a bimetal strip 24 which is heated by the bimetal strip heater 25. The strip moves when heated to connect with contact 26. The strip will move and disconnect when the heat is not applied. This strip is a heatable shape-memory element. See Column 4, Lines 11-17. Also, a temperature sensitive material is located in the heating element 66 which increases or decrease in volume depending on the temperature controls the activation of the ram actuator. The material is heated and changes from a solid to liquid state axially displacing the ram. When the material solidifies it contracts and allows the ram to retract. See Column 5, Line 5 - Column 6, Line 7.)** The applicant also discloses a shape memory element device capable of opening an oven door which can be used for opening and closing a device. See Paragraph [0004] of the specification.)

Regarding Claim 10: The cooking appliance further comprising a return element disposed between the door and the housing, wherein the return element is in force-transmitting connection with the door and the housing and is configured to aid the return of the door from the predetermined open position to the closed position.

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(A hinge lever 33 connected to the oven door 7 is connected to a spring 35 which is secured to the body by bracket 36. This spring helps urge the door back to a closed position. See Column 4, Lines 43-50)

Regarding Claim 11: The cooking appliance further comprising at least one of a spring device and a damping device mounted on the rod and configured to retard a movement of the door from the closed position to the predetermined open position. **(A spring 52 is mounted on the push rod center section 53 shown in Fig 2. This spring is capable of retarding the movement of the door from the closed to open position. See Column 5, Line 13. There is also a buffer tip 112 shown in figure 7 for the same function which can be used with the spring 52)**

Regarding Claim 12: The cooking appliance further comprising at least one of a spring device and a damping device mounted on the rod and configured to retard a movement of the door from the predetermined open position to the closed position. **(A spring 52 is mounted on the push rod center section 53 shown in Fig 2. This spring is capable of retarding the movement of the door from the open to closed position. See Column 5, Line 13. There is also a buffer tip 112 shown in figure 7 for the same function which can be used with the spring 52)**

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walkoe as modified by Lile in further view of Berger et al (US 2003/0010221).

The teachings of Walkoe as modified by Lile have been discussed above.

Walkoe as modified by Lile fails to teach:

Regarding Claim 8: The cooking appliance as recited in claim 7, wherein the cooking appliance is a steam cooking appliance.

Berger et al teaches:

Regarding Claim 8: a steam cooking apparatus (**See Paragraph [0002], Line 1**)

In view of Berger et al's teachings it would have been obvious to one of ordinary skill in the art at the time of the invention to include with the teachings of Walkoe, the cooking appliance as a steam cooking appliance since, Berger et al teaches a steam cooking apparatus for energy savings and a uniform temperature distribution in the entire cooking chamber.

(10) Response to Argument

In response to appellant's argument on pages 5-7 of the brief, the door in Walkoe is not directly closed based on a temperature or humidity. The door in Walkoe will open when a desired temperature is reached. The system for opening the door will also retract which would allow the door to be closed upon a different lower temperature being reached. Since the door does not actually close until a cook comes along and closes it

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after the physical quantity of the lower temperature is reached an obviousness type rejection was made. The claim does not encompass a time period as to how soon after the door closes when a second signal indicative of a physical quantity occurs. The cook closing the door occurs after the second signal of temperature since the bimetallic switch will "switch" when the temperature is lowered. Therefore, the door will close in response to a second signal. Lile is merely relied upon for the different voltages high and low signals, which are different, for opening and closing a door.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/BRIAN JENNISON/

Examiner, Art Unit 3742

Conferees:

/Henry Yuen/

Supervisory Patent Examiner, Art Unit 3742

/TU B HOANG/

Supervisory Patent Examiner, Art Unit 3742